

REMARKS

Initially, Applicant thanks the Examiner for the courtesies extended during the interview conducted April 7, 2005. During the interview, proposed claim amendments were presented. The proposed claim amendments are hereby formally submitted.

Claims 1-20 are all the claims pending in the application, with claims 1, 5, 17 and 19 being in independent form. No new matter is introduced by this amendment, wherein claims 1-12 and 15-20 are amended.

To summarize the Office Action, the Examiner rejected claims 1-14, 17 and 18 under 35 U.S.C. § 103(a) based on Okuda (US Patent No. 6,380,689) in view of Nakano et al. (US Patent No. 6,043,818, hereinafter “Nakano”) and Hashimoto et al. (US Patent No. 6,072,457, hereinafter “Hashimoto”), claims 19 and 20 under 35 U.S.C. § 103(a) based on Okuda in view of Nakano and Sato et al. (US Patent No. 5,903,707) and rejected claims 15 and 16 under 35 U.S.C. § 103(a) based on Okuda in view of Nakano and Hashimoto further in view of Ge et al. (US Patent No. 5,347,292). Each ground of rejection is addressed as follows:

Claim Rejections - 35 USC § 103

Claims 1-14, 17 and 18 stand rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over Okuda (6,380,689 B1) in view of Nakano et al. (6,043,818) and Hashimoto et al. (6,072,457). This ground of rejection is traversed.

Independent claims 1, 5 and 17 recite a unique combination of elements that define a novel picture displaying apparatus and method of driving a picture displaying apparatus. For instance, a unit display data of a display content is stored in a plurality of memory cells of a memory unit and the unit display data is read from the memory unit in a first order and at least one second order. Further, the display data read in the first order is written to the display as a first predetermined frame and the display data read in the at least one second order is written in at least one second frame. Thus, a plurality of images can be generated on the display without the need for a calculating circuit. (see specification at pages 7-11).

Notwithstanding the Examiner's rejection of claims 1-14, 17 and 18, Applicant respectfully submits that these claims are neither taught nor suggested by the cited prior art. For example, Okuda merely teaches an active matrix luminescent type display panel including an analog to digital converter which samples an analog input signal and stores the analog signal as digital pixel data. The digital pixel data are read from a memory and written to the display. (Okuda at col. 3, lines 31-58 and col. 6, lines 44-58). Thus, Okuda, at most suggests a digital display which samples an analog input signal and converts the image to digital pixel data for subsequent display. Indeed, the Examiner concedes that Okuda fails to teach reading the display data in a different order.

Further, the combination of Nakano with Okuda suggests nothing about the claimed reading of the claimed unit display data in a first order and at least one second order. Nakano teaches only a rotating icon display for a graphical user interface implemented in a personal

computer. The display of the rotating icon is achieved by sequentially displaying 18 separate bitmap images that have been prepared in advance. (see Nakano at col. 13, line 52 - col. 14, line 20). Thus, Nakano merely teaches displaying a plurality of pre-stored bitmap images in sequence to provide the effect of a rotating icon. Moreover, Nakano utilizes 18 different sets of display data (i.e., each of the 18 bitmap images), and these different bitmap images are simply read in sequence. In contrast, the apparatus and method of claims 1-14, 17 and 18 utilize a single display data, wherein the single display data is read from memory in a first and at least one second reading order, whereby a first predetermined frame and at least one second predetermined frame are displayed. No such memory reading and display is suggested by Nakano, either alone or in combination with Okuda.

Further, the Examiner relies on Hashimoto to teach memory reading of display data in a different order. However, Applicant respectfully submits that Hashimoto, either alone or in combination, fails to teach or suggest the limitations of claims 1-14, 17 and 18. For instance, Hashimoto teaches a method for displaying data wherein an image signal input in a first format (i.e., PAL or Phase Alternate Line) can be displayed on a display in a different format (i.e., NTSC). (Hashimoto at col. 3, line 35 - col. 4, line 24). Although the Examiner is correct in that Hashimoto may teach reading out an input image signal stored in memory in a different order from that in which it was stored in memory, Hashimoto still fails to suggest the claim limitations, which provide for reading out a single display data in a first order and at least one second order.

Indeed, Hashimoto merely converts an input image to a single corresponding output image in a different format.

Accordingly, Applicant respectfully submits that the claims 1-14, 17, and 18 are neither taught or suggested by the combination of Okuda, Nakano and Hashimoto. Therefore, Applicant requests reconsideration of this ground of rejection and requests these rejections be withdrawn.

The Examiner rejected claims 19 and 20 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Okuda in view of Nakano and Sato. Applicant traverses this ground of rejection.

The above arguments with respect to Okuda and Nakano are equally applicable to claims 19-20. Further, the Examiner relies on Sato to provide a teaching of reading memory from the memory unit in a different order. In response, Applicant submits that the combination of Sato with Okuda and Nakano fails to teach or suggest the limitation of claims 19 and 20. For instance, Sato teaches processing an image signal wherein a single frame is stored in a predetermined order. Then, the stored image data is read back in a first order and a second order, such that the upper half of the frame is read in the first order and the lower half of the frame is read in the second order. (Sato at col. 2, lines 4-35 and col. 5, lines 46-57). However, Sato teaches only manipulating a single input frame to generate a single output frame. Thus, one frame can be divided into a plurality of parts to be recorded on a plurality of tracks of a recording medium. (Sato at col. 1, lines 11-15). By contrast, claims 19 and 20 require a single display data to be read in a first order and at least one second order, and then written on the display as first

predetermined frame and at least one second predetermined frame. As discussed above, Sato suggests nothing about writing two frames from the same single display data.

Accordingly, Applicant respectfully submits that the combination of Okuda in view of Nakano and Sato fails to teach the limitations of claims 19 and 20 and requests reconsideration and withdrawal of the rejection.

Finally, the Examiner rejected claims 15 and 16 under 35 U.S.C. § 103(a) based on Okuda in view of Nakano and Hashimoto, further in view of Ge. In response, Applicant notes that claims 15 and 16 depend from claims 1 and 5, respectively. Therefore, Applicant submits that these claims are allowable at least by virtue of their respective dependency from claims 1 and 5. Accordingly, Applicant requests the rejection of claims 15 and 16 be withdrawn.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/997,194

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